



ENERGY SAVINGS PERFORMANCE PROCESS CHANGES

The “MEASURES” project seeks to develop Evaluation, Measurement, and Verification protocols and an energy efficiency/carbon emissions tracking approach that integrate non-ratepayer funded energy savings performance contracting programs into compliance plans for the U.S. EPA’s Clean Power Plan. The purpose of this report, Milestone 1.4.2, is for the States to outline any ESPC process changes they will pursue based on the consensus approach developed and roadmap for calculating ESPC projects emissions reductions and gather input and feedback from stakeholders.

September 26, 2016

TABLE OF CONTENTS

Introduction	3
A. Findings, Process Changes and Recommendations	3
1. Key Aspects of ESPC Management	3
2. Key Metrics and Reporting	4
3. M & V of Savings	4
4. Data Gathering and Reporting	4
5. Emissions Impacts	5
6. EPA EM&V Guidance	5
7. Registries	6
8. Training	6
9. Limitations on State Agency Authority	6
B. State's ESPC EM&V Questionnaire and Responses	7
1. Overview	7
2. Summary of Findings	9
Table A. Measurement and Verification of Savings	13
Table B.1: ESPC Policies	14
Table B.2: ESPC Practices	16
Table Notes	17
Acknowledgment/Disclaimer	21

Introduction

This document presents results from the two-year MEASURES project. Section A “Findings, Process Changes and Recommendations” includes points of consensus identified through the project, any resulting process changes in the MEASURES States, and recommendations for other states’ agencies involved in the administration of performance contracting programs. Section B “State’s ESPC EM&V Questionnaire and Responses” presents questions to and responses from the MEASURES project partner states of Virginia, Kentucky and Georgia, which helped to inform and clarify the findings, process changes and recommendations described in Section A.¹

A. Findings, Process Changes and Recommendations

1. Key Aspects of ESPC Management

The MEASURES States have identified a set of seventeen “key aspects” of ESPC management that frame their administration of ESPC programs and impact their rigor and comprehensiveness:

1. Is EM&V required?
2. Is early termination permitted?
3. Is an annual reporting required?
4. Is an ESCO prequalification protocol in place?
5. Which, if any, EM&V protocols are specified (IPMVP, ASHRAE, FEMP, UMP)?
6. Which protocols are permissible?
7. Which ECMs are most prevalent?
8. Is projected technical data collected at installation?
9. Is data collection ongoing for the contract term?
10. Is eProjectBuilder actively promoted?
11. To what extent is M&V cost a major consideration?
12. Is there direct oversight of agency ESPC contracts?
13. Is there direct oversight of local government ESPC contracts?
14. Is adequate EM&V education and training in place for agency and local government staff?
15. Is there direct involvement in M&V assessment for the contract term?
16. Is technical assistance provided to agencies and local governments in the contract stage?
17. Are there mechanisms in place for direct air agency input?

Changes in MEASURES States: None (The States collaborated on the identification of these Key

¹ A second separate questionnaire, focused on ESPC project tracking and eProject Builder, is not reported in this paper.

Aspects.)

Recommendations for other states: States newer to ESPC should consider each of these questions as they build out their own ESPC policies and procedures.

2. Key Metrics and Reporting

Key quantitative metrics identified as important to the States include the value of ESPC improvements; energy and water savings and their monetary value (predicted, guaranteed and actual); other impacts and savings, such as those for operations and maintenance (O&M); progress toward state energy-savings goals, if applicable; and environmental impacts, including avoided greenhouse gas, criteria air pollutants and other emissions. Virginia has established calculation, reporting and tracking procedures for some of these metrics and others, as achieved by state facilities, including a form of “dashboard” to display them.

Changes in MEASURES States: Georgia is considering the implementation of a dashboard to track desired quantitative metrics.

Recommendations for other states: Other states may wish to consider tracking these metrics, in addition to others prescribed by statute or otherwise prioritized by the state.

3. M&V of Savings

The MEASURES team examined multiple M&V protocols, in addition to surveying various state-level stakeholders, and determined that the IPMVP is (a) most familiar and widely used, (b) consistent with the other protocols and (c) sufficient to support both state-level needs and EPA requirements for potential crediting of avoided emissions, including Clean Power Plan “best-practice” criteria and trading rules.

Changes in MEASURES States: The States have agreed to follow the option-choice guidance offered within IPMVP, which is consistent with both FEMP and UMP publications by DOE.

Recommendations for other states: The MEASURES States acknowledge that IPMVP is institutionalized in their respective jurisdictions by a mixture of statutory obligations and existing protocols. Other states may also wish to consider FEMP M&V Guidance, acknowledging that there may be benefits to providing a level of consistency between state and federal ESPCs, as well as UMP protocols for particular energy efficiency measure and project types.

4. Data Gathering and Reporting

The States have agreed that eProjectBuilder (ePB) is a beneficial and accessible standard online tool for gathering, organizing, and recording information on ESPCs as they are implemented. However, the States have noted that ePB may be most practical for utilization by larger entities that manage multiple projects. Further, the States have noted that enhancements to ePB, such as the ability to query and generate reports, would greatly increase the utility and attractiveness of the tool.

Changes in MEASURES States: The States will continue to work with the ESCO industry and ESPC

contracting entities to take advantage of ePB capabilities as is cost-effective, and to provide feedback to LBNL on the tool's functionality to enhance its utility and value to states.

Recommendations for other states: Other states may wish to consider ePB as a helpful data tracking tool, particularly for large-scale projects, and consider incentives or requirements for the use of ePB within their ESPC program frameworks.

5. Emissions Impacts

Under the final Clean Power Plan (CPP), released in late 2015, crediting of energy efficiency programs and projects, including ESPC projects, under rate-based state compliance plans will only require adequate demonstration of avoided electric energy consumption, a general output of EM&V protocols, rather than direct emissions impacts. Hence, EM&V of energy savings combined with consistent reporting and tracking can be used for issuance of "Emission Reduction Credits" without the need for translation to avoided emissions. Under mass-based state compliance plans, emissions impacts are automatically reflected as reduced power plant emissions so EM&V and emission quantification may not be required. However, even under a mass-based plan, EM&V and emission impact quantification can be important under some allowance allocation approaches (e.g., allocating allowances to energy efficiency providers) and for planning and evaluation of programs and policies to show efficacy of energy efficiency as an emissions reduction approach. Further, quantification of avoided criteria pollutant and hazardous air pollutant emissions could be recognized and credited for compliance with National Ambient Air Quality Standards (NAAQS), regional haze and other Clean Air Act programs. And some form of trading of emission impacts may be important in future voluntary or compliance markets.

Changes in MEASURES States: None. However, state energy offices have been in communication with state air quality regulators about potential roles for energy efficiency, including ESPC, in CPP compliance strategies.

Recommendations for other states: States with an interest in leveraging ESPC projects for CPP compliance purposes may wish to focus their efforts on EM&V practices and related reporting and tracking, rather than calculating avoided CO₂ emissions. States may also wish to consider calculating avoided criteria pollutant emissions from ESPC for recognition in NAAQS State Implementation Plans or for other Clean Air Act compliance obligations. EPA's AVERT tool is a readily available and usable tool for quantifying avoided CO₂ and criteria pollutant emissions.

6. EPA EM&V Guidance

As stated previously, the States have agreed to follow the IPMVP option-choice guidance. The States recognize that the draft EM&V Guidance published by EPA may require, for compliance, data beyond what IPMVP and ePB presently specify; and they agree that such additional data would likely impose disproportionate cost on ESPCs at the project level.

Changes in MEASURES States: None.

Recommendations for EPA: The States recommend that EPA keep this guidance consistent with existing protocols like IPMVP to facilitate ease of implementation.

7. Registries

At the outset of the project, MEASURES States explored options for developing a registry to track energy efficiency savings from ESPC projects. The Tennessee Department of Environment and Conservation's Office of Energy Programs, leading a team of five other states (Georgia, Michigan, Minnesota, Oregon and Pennsylvania) and several non-state partners (NASEO, The Climate Registry, E4TheFuture) was selected for a DOE State Energy Program (SEP) competitive award to develop operating principles and rules for a National Energy Efficiency Registry (NEER). E4TheFuture is also working beyond this particular project with other partners on other elements that a NEER would require to be implemented. The MEASURES team has decided to "piggy-back" on the Tennessee-led effort to set up a national Registry, for both CPP and private-market purposes.

Changes in MEASURES States: Two MEASURES team members (Georgia and NASEO) are partners on the NEER project and several other project team members have chosen to participate in the NEER stakeholder process.

Recommendations for other states: The project team recommends that other states leverage the NEER platform, rather than developing their own registries.

8. Training

All States acknowledge the need for more adequate EM&V education and training on an on-going basis and agree that strengthened outreach, education and technical assistance on ESPCs including EM&V aspects could enhance the number and quality of ESPC projects and improve quantification of financial, energy, water and environmental benefits.

Changes in MEASURES States: MEASURES States are considering additional education and training of state and local agency staff regarding M&V best practices.

Recommendations for other states: The project team recommends a strong focus in the area of outreach, training and education for states newer to EPSC.

9. Limitations on State Agency Authority

The States are bound by specific practices and procedures articulated in statute and regulation. In addition, especially in Kentucky and Virginia, where ESPC programs are farther developed, performance contracting programs rely on practices established over years of ESPC implementation. As a result, changes to the ESPC process will likely require extensive time and effort, and potentially new legislation.

Changes in MEASURES States: None.

Recommendations for other states: States should consider the findings and recommendations of this MEASURES project in developing or revising statutes, regulations and policies concerning

ESPCs for state as well as local and other public entities. States that are relatively new to ESPC may have more flexibility to establish new laws and regulations, as well as policies and procedures that take into account lessons and recommendations from more experienced states.

B. State's ESPC EM&V Questionnaire and Responses

1. Overview

The questions reflect the EM&V and ESPC tracking aspects examined and assessed in the MEASURES Cross State Report (Task 1.2), completed on October 19, 2015. For context, that report's "Introduction and Summary of Conclusions" is repeated here:

"This report presents draft conclusions and commitments of the Partner States (Virginia, Kentucky, and Georgia) regarding a consensus approach to evaluation, measurement, and verification (EM&V) of avoided electric energy consumption via energy-saving performance contracts (ESPCs). Once a standard EM&V practice is in place, the subsequent steps can be taken with confidence: conversion to emission rate credits ("ERCs") and carbon dioxide emission avoidance, and a registry for potential trading. These steps are depicted in the "Roadmap" report that is now in draft form.

"As a result of the investigations described in the Cross-State report, the States' Energy Offices have agreed on the following four sets of standards, as goals for their own purposes as well as potential compliance with air quality requirements:

- a. Metrics and reporting
- b. Measurement and verification of savings
- c. Data gathering and reporting
- d. Requirements, practices, and policies needed to establish EM&V confidence

"Metrics and Reporting. The only ESPC metric required by the CPP is avoided electrical energy consumption. This is available from ESCO reports, calculated using IPMVP options as appropriate to the particular technology, and recorded in eProjectBuilder (ePB) where that platform has been adopted. Other quantitative metrics² important to the States include the value of ESPC improvements, unit and dollar savings (predicted, guaranteed, and actual), market penetration rates, and avoided emissions of all the "criteria" pollutants. Kentucky and Virginia have established calculation, reporting, and tracking procedures for these metrics and others, as achieved by state facilities, including a form of "dashboard" to display them, and will share these with Georgia and other states. All the states have set goals to extend their reporting to ESPCs in non-state facilities, as time and budgets allow.

"Measurement and Verification of Savings. The States have agreed that the IPMVP is the best available M&V protocol. It defines four "Options" for its application, whose selection depends on local facility conditions, technologies, scale, and interactions on a case-by-case basis. To help standardize that selection and make it as compliant as possible with air regulators and PUCs, the States have agreed to

² There are many qualitative improvements important to ESPC promotion, including reliability and resilience, comfort, indoor air quality, health and safety impacts, productivity, etc., but these are difficult to quantify and track.

follow the Option-choice guidance offered in the IPMVP documents themselves, which are consistent with recent Federal Energy Management Program (FEMP) and Unified Methods Project (UMP) publications by DOE. The States recognize that the draft EM&V Guidance published by EPA may require, for compliance, data beyond what IPMVP and ePB presently specify; and they agree that such additional data would likely impose disproportionate cost on ESPCs at the project level.³ The States and other MEASURES Partners are therefore considering submitting comments on that Draft Guidance, as invited by EPA.

“Data Gathering and reporting. The States have agreed that “eProjectBuilder” (ePB) is a beneficial and accessible standard online tool for gathering information on ESPCs as they are implemented, and that incentivizing or developing requirements for ESPCs to use ePB should be considered. It may be that ePB is most practical for utilization by larger entities that manage multiple projects.⁴ The States will continue to work with the ESCO industry and ESPC contracting entities toward taking as full advantage of ePB capabilities as is cost-effective.

“Requirements, practices, and policies. Seventeen “key aspects” of ESPC management that will support both the States’ and EPA’s requirements have been identified in these investigations of the States’ practices. The report describes each, and tabulates which are practiced in common...”

The responses to this EM&V questionnaire, summarized in three tables below, demonstrate each state’s determination of where it stands in regard to each aspect. Each aspect has its own shades of grey within it, allowing for achievement of the aspect’s goals by use of many different approaches. Although all aspects are desirable, adoption of all of them is not absolutely critical to a state’s ability to accurately assess the energy-saving efficacy of its state agency ESPC projects or its ability to claim those savings, either as Emissions Rate Credits (ERCs) in a potential CPP plan, or within an associated carbon registry. A few aspects, however, are critical and all three states either substantially practice, or strive to practice most of them. However, some states do not yet report an ability to track local government ESPC projects’ M&V results over the project term.

Each question prompts the state to indicate if the subject aspect is now in place in its ESPC approach and, if not, if the aspect is still being pursued or if a decision has been made to not follow that aspect’s requirements. The Summary of Findings (and the Table Notes at the end of this report) includes detailed explanations (as provided by each state), of all responses that indicate a divergence in the states’ collective ability to implement that particular aspect.

³ EPA’s final EM&V Guidance after the comment period will determine which Options are most appropriate for compliance. Multiple baselines based on equipment-level useful life and efficiencies will make Option C almost impossible to apply to master-metered, whole building, HVAC improvements. Only A or B will be feasible if the Guidance is unchanged.

⁴ In discussions with LBNL, it was clear they feel that while in general ePB may be most valuable for utilization by larger entities, it’s possible that some smaller organizations may find ePB valuable for tracking savings and preserving data and documents over time, avoiding data losses that can occur when there is staff turnover.

2. Summary of Findings

This summary of findings is extracted from Tables A, B1 and B2, below, and highlights the states' points of convergence and divergence on M&V, Policies and Practices.

Table A: Measurement and Verification of Savings

Points of Convergence:

1. States will not encourage or require the use of FEMP M&V guidance for non-federal ESPCs. Georgia does list FEMP as an M&V option.

Points of Divergence:

1. Georgia cannot require the use of IPMVP. Kentucky and Virginia can and do require it. The Georgia State statute specifically allows for IPMVP and ASHRAE or "Other applicable technical performance standards established by nationally recognized standards authorities", which may include any applicable FEMP M&V Guidance. Typically, projects do use IPMVP. Georgia goes through M&V thoroughly with the agencies but by statute cannot limit it to just IPMVP or any other protocol.
2. Kentucky will not require the collection of ESPC "energy conservation measure" (ECM) data beyond what IPMVP may presently specify. Georgia and Virginia are pursuing the possibility of doing so and may include this in future contracts, especially if necessary to report or credit energy savings under the Clean Power Plan.

Table B.1: ESPC Policies

Points of Convergence:

State Agency ESPCs:

1. Review and approve all ESPC contracts.
2. Establish standard contract language.
3. Track the progress of all ESPCs.
4. Provide technical assistance (although Kentucky's assistance is limited).

5. Provide ECM/Project level M&V education and training.

Local Government ESPCs:

1. Provide ECM/Project level M&V education and training.

Points of Divergence:

State Agency ESPCs:

1. Georgia and Virginia preapprove ESCO eligibility to perform state agency ESPCs. Kentucky does not and will not. In Kentucky, the Finance and Administration Cabinet (FAC) is responsible for state facilities management and ESPCs. It issues RFPs/RFQs and provides ESPC standard contract language for state contracts but it does not preapprove or pre-qualify ESCOs.
2. Georgia and Virginia report the status and performance of ESPCs to the executive or legislature. Kentucky does not and will not as there are no reporting requirements; there was draft legislation a few years ago to require reporting, but it was defeated.
3. Virginia has direct involvement in M&V assessment for the contract term or some portion of the contract term. Georgia and Kentucky do not and will not. Georgia only collects annual reports from state agencies during the M&V period and does not actively participate in the M&V process. Kentucky cannot assess M&V due to limited resources.
4. Virginia obtains state air quality agency input on ESPC as emission avoidance approach. Georgia does not, but may in the future as air agency input could come into play depending on developments with the CPP. Georgia is also a partner state in a National Energy Efficiency Registry (NEER) project that may have future influence on crediting of energy efficiency for air quality regulatory purposes. Kentucky does not and will not because it maintains that the final version of CPP makes this largely irrelevant (except under the Clean Energy Incentive Program); work is underway to lay the groundwork for the option of a Technical Reference Manual (TRM) in Kentucky as a better foundation for the quantification of EE savings and EM&V.

Local Government ESPCs:

1. Virginia and Kentucky will review local government ESPCs, but have no authority to approve. Georgia does not and will not review or approve. Currently in Georgia, local governments do not have to work with the state or use the state process. Georgia does not foresee requiring local governments to get state approval for ESPCs.
2. Virginia (Department of General Services) preapproves ESCOs. Georgia and Kentucky do not and will not. Georgia encourages local governments to use state-approved ESCO but cannot require them to do so. In Kentucky, revised statute (KRS 45A) allows local governments to utilize ESPCs but does not authorize state pre-approval of ESCOs.
3. Kentucky and Virginia have established contract language required for locality ESPCs. Georgia encourages local governments to use the state contract but they cannot require them to do so.
4. Kentucky and Virginia track the progress of ESPCs. Georgia will encourage local governments to enter data in ePB or some other registry but does not currently collect data and it is unlikely that they will do so in the near future.
5. Kentucky and Virginia report the status and performance of ESPCs to the executive or legislature. Georgia would like to better track local government projects but as of now does not have a mechanism to do so.
6. Georgia and Virginia provide direct technical assistance (TA). Kentucky provides indirect training. Georgia provides limited assistance. In Kentucky, the Department for Local Government (DLG) and the Center of Applied Energy Research (CAER) provide TA to local governments – serving as owner advocate; one of the sub-contractors to CAER is a retired ESCO representative. This is desirable, but no mandate or requirement is foreseen.
7. Virginia has direct involvement in M&V assessment for the contract term or some portion of the contract term. Kentucky provides indirect support. In Kentucky, DLG and CAER provide this service on a project-by-project basis (i.e., as communities initiate RFPs) as long as grant funds are available (currently to fall 2017). Georgia does not and will not actively participate in the M&V process.

Table B.2: ESPC Practices

Points of Convergence:

State Agency ESPCs:

1. All three states have indicated acceptance of, or a willingness to entertain the use of, the DOE's eProjectBuilder (ePB) software tool to collect state agency project metrics, including annual M&V savings, over the term of each ESPC. The states' interaction with the Lawrence Berkeley National Laboratory (LBNL), the software creator, in an attempt to adapt the tool to their needs, is an ongoing process and the subject of a separate Questionnaire and memo.

Local Government ESPCs:

1. Same comment regarding ePB as above, although the states' share skepticism that smaller locality ESPCs should participate in ePB due to the relatively low magnitude of savings vs. the effort it takes to enter the data.

Points of Divergence:

State Agency ESPCs:

1. Virginia and Georgia collect ESPC project technical data at the time of installation and over the contract term. Kentucky's FAC tracks all contracts for financial information but does not maintain a detailed technical database of emissions reductions associated with the contracts. Department of Education tracks K-12 ESPCs, but is limited to location and dollar amount.

Local Government ESPCs:

1. Virginia collects ESPC project technical data at the time of installation and over the contract term. Kentucky tracks projects for which technical assistance is provided – limited to number of contracts, owner and dollar amount. Georgia does not currently have a way to collect all local government project data and likely will not in the future.

Table A. Measurement and Verification of Savings:

ESPC EM&V Issue:	GEORGIA		KENTUCKY		VIRGINIA	
	In Place	Will/Will Not Pursue	In Place	Will/Will Not Pursue	In Place	Will/Will Not Pursue
a) Require IPMVP as the best available M&V protocol available to your State	No	Can't	Yes		Yes	
b) Follow the option-choice guidance as offered in the IPMVP	Partial	Can't completely.	Yes		Yes	
c) (1) Encourage or (2) Require use of FEMP M&V guidance (as is used for federal ESPCs)	No	Probably can't.		No	No	
d) Require ESPC ECM data beyond what IPMVP or FEMP may presently specify (such as but not limited to considerations for the Clean Power Plan [CPP])	Not yet	Possibly		No	No	
e) (1) Reviewed or (2) commented on the EPA draft CPP EM&V Guidance.	Yes	Will	Yes		No	

Table B.1 - Policies

	GEORGIA		KENTUCKY		VIRGINIA	
ESPC Policy	In Place	Will/Will Not Pursue	In Place	Will/Will Not Pursue	In Place	Will/Will Not Pursue
a) Direct state agency [and, if so, which agency] responsibility for agency ESPC contracts regarding:			Yes		Yes	
1. Reviewing and approving ESPCs	Yes		Yes	No	DMME	
2. Approving, preapproving eligible ESCOs	Yes				DGS	
3. Establishing standard contract language	Yes		Yes		DGS	
4. Tracking of ESPCs	Yes		Yes	No	DMME	
5. Reporting to executive or legislature on ESPC status and performance	Yes				DMME	

b. Direct state agency [and, if so, which agency] responsibility for Local Government ESPC Contracts regarding:	No	No	No	No	DMME DGS	
1) Reviewing and approving ESPCs	No	No	Yes	No		
2) Approving, preapproving eligible ESCOs	No	No				
3) Establishing standard contract language	No	No	Yes			
4) Tracking of ESPCs	No	Maybe	Yes			
5) Reporting to executive or legislature on ESPC status and performance	No	No	Yes			
c) Provide Technical Assistance to (1) state agencies and/or (2) local governments in contract stage	Yes	Yes	1. Limited	2. No	Yes	
d) Provide Project/ECM level M&V education and training for (1) state agency and (2) local government staff	Yes	Yes	1. Yes 2. Yes		Yes	
e) Direct involvement in M&V assessment for contract term or some portion of contract term	No	No		No	Yes	
f) Seek or obtain state air quality agency input on ESPC as emission avoidance approach	No	Possibly		No	Yes	

Table B.2 - Practices

	GEORGIA		KENTUCKY		VIRGINIA	
ESPC Practice	In Place	Will/Will Not Pursue	In Place	Will/Will Not Pursue	In Place	Will/Will Not Pursue
a) ESPC project technical data collected by state oversight agency for all installations	Yes		No		DMME	
b) Project data collection by state oversight agency for ESPC contract term	Yes		No		DMME	
c) Specific data types collected:			No			
1) Financial (cost, savings, debt service payment)	Yes				Yes	
2) Energy (electricity, natural gas, other)	Yes				No	
3) Other (water, sewer service, O&M, complaint resolution, etc.)	Yes				Yes	

Table Notes:

Table A. Measurement and Verification of Savings:

Georgia:

- a. The state statute allows for IPMVP, or other industry standard, including ASHRAE. I don't think we can change this. Typically, our projects do use IPMVP though.
- b. Most of our projects follow IPMVP and we go through M&V pretty thoroughly with the agencies, but by statute we can't limit it to just IPMVP.
- c. FEMP is referenced as an option, but we don't and probably can't require following FEMP guidance.
- d. We may include this in contracts in the future, such as reporting carbon savings, but that is TBD.
- e. We have and will continue to comment on the CPP, including the draft EM&V guidance.

Kentucky:

- a. KRS 45A.352
- e. Reviewed guidance – did not submit formal comments.

Virginia:

- a. We do have M&V in the contract. It is required by code to have a yearly reconciliation meeting between the ESCO & the Agency/Public Body. Some require a meeting more often the first year or 2. We use IPMVP on all of our projects.

Table B.1 Policies

Georgia:

a.

1. GEFA is required to approve all state agency/authority contracts prior to execution.
2. All agencies have to use GEFA's pre-approved list.
3. All state entities must use our contract documents.
4. All agencies must submit annual reports to us once projects are executed.
5. GEFA submits annual reports to the Georgia State Finance and Investment Commission, which includes the governor.

b. Currently, local governments do not have to work with the state or use our process. I do not see this changing.

1. I don't see Georgia requiring local governments to get state approval for ESPCs. This is not on our radar.
2. We encourage local governments to use our list, but can't require them.
3. We encourage local governments to use our list, but can't require them.
4. We would like to better track local government projects, but as of now don't have a mechanism.
5. We don't see this happening at this time.

c. We are required to provide technical assistance to state agencies, but at this time can only provide limited assistance to local governments. We hope to offer more in the future.

d. We provide significant education for state agencies, but only limited education and training to local governments. We hope to provide more to local governments in the future.

e. We only collect annual reports from state agencies during the M&V period; we do not actively participate in the M&V process.

f. This may come into play depending on the CPP. Also, we are working on the NEER project that may influence this as well.

Kentucky:

a. Finance and Administration Cabinet (FAC) responsible for state facilities management and ESPCs.

1. Yes – and issuing RFP/RFQ, contracts, etc.
2. No preapproval or pre-qualified process for ESCOs.
3. Standard contract language for state contracts exists.
4. Not aware of any comprehensive tracking system.
5. No reporting requirements; there was draft legislation a few years ago to require reporting, but it was defeated.

b. The state energy office (DEDI) provides funding (SEP grant) to the Dept. for Local Government (DLG), and their subcontractor, the University of Kentucky's Center for Applied Energy Research (CAER), to support cities and counties with owner/advocate services (provide template documents, review and comment on contracts, drafting RFP/RFQs, compile utility data etc.).

1. Reviewing only – no authority whatsoever; role is simply as consulting service.
2. KRS 45A allows local governments to utilize ESPCs, but lays out no authority for anything beyond the guarantees, M&V, debts, etc. No pre-approval process required.
3. DLG adapted standard RFP and contract language from FAC for local governments; however, local governments have ability to modify any and all, and frequently do.
- 4/5. DEDI, DLG, and CAER, as a function of their SEP grant role, track the ESPCs that have come about during the course of the grant funding, and report these to DOE. However, there is no mandate for reporting or tracking.

c.

1. FAC provides TA on ESPCs and procurement process to the various agencies that utilize ESPCs.
2. DLG and CAER provide TA to local governments – serving as owner advocate; one of the sub-contractors to CAER is a retired ESCO representative. This is desirable, but no mandate or requirement is foreseen.

d.

1. FAC provides limited education and training – but acknowledges the need for more assistance in this area. DEDI has identified this as an area where the state energy office could provide assistance; work on this was initiated, but because of limited resources this has fallen by the way-side.
2. DLG and subcontractor, CAER, provide this service on a project-by-project basis (i.e. as communities initiate RFPs) as long as grant funds are available (to fall 2017).

e. Because of limited resources.

f. Because of final version of CPP, this is largely irrelevant (except under CEIP; work underway to lay groundwork for option of TRM in Kentucky as better foundation for quantification of EE savings and EM&V).

Virginia:

a. DMME

1. Review & approve state projects, same, as requested by public bodies.
2. DGS does RFP but I am not sure what their qualification guidelines are.
3. Contract terms vary at times so it is not a cookie cutter solution but DGS states no changes.
4. We track projects and going forward they will be in eProject Builder.
5. Reported to Governor's Office.

b.

1. We review at their request but no authority to approve.
2. Same contract as state agencies.

c. I review scope vs. contract addendums but I do not review contract for legal issues or terms & conditions.

d. This is done by the ESCO in workshops. I try to attend them to make sure the client understands what the ESCO is presenting.

e. Work with agency/public bodies to match M&V to ECMs.

f. Have continuing dialogue with DEQ regarding quantification of EPC CO2 avoidance for CPP compliance.

Table B.2 Practices

Georgia:

a. We collect the investment grade audits and contracts, as well as the annual savings reports.

b. We collect annual savings reports each year.

Kentucky:

- a. State agency (FAC) tracks all state contracts – no comprehensive database; difficult to access information.
- b. K-12 tracking by Dept. of Education – difficult to retrieve – mostly limited to location and dollar amount.
- c. Local government – tracking during course of SEP-funded grant activities – limited to location and dollar amount.

Virginia:

- a. DMME tracks total annual value of EPC projects, the amount that is financed by savings, and the NPV of net savings, which are defined as “the value of avoided costs that exceed debt service during and after repayment of the loan.”
- b. DMME intends to require ESCOs to input project data and annual M&V data into the eProject Builder database beginning in CY 2017.
- c. CO2 Emission reductions are extrapolated using EPA emission factors.

=====

ACKNOWLEDGMENT: The information, data, or work presented herein was funded in part by the Office of Energy Efficiency and Renewable Energy (EERE), U.S. Department of Energy, under Award Number DE-EE0006891.

DISCLAIMER: The information, data, or work presented herein was funded in part by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.